

Work Order ID 138818

Thursday, November 12, 2015 2:51:33 PM

138818

Nov. 27th Page 1

Item ID: D3681-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Spacer

Start Date: 11/12/2015 Start Qty: 50.00

50

Cust Item ID:

Required Date: 11/20/2015 Req'd Qty: 50.00

50

Customer:

Reference:

Approvals:

Process Plan: JMF

Date: 15-11-12

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3681

Rev A

100

0.00

100

Hardinge CNC LATHE SMALL

Hardinge

Memo

0.02

Hardinge CNC Lathe Small

1-TURN AS PER FOLIO FA711& DWG D3681

FOLIO REV: AA

DWG REV: A

2-DEBURR AS REQUIRED

SI ϕ JFC 2015-11-16

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.01

Quality Control

SI ϕ JFC 2015-11-16

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.02

Quality Control

SI ϕ DAS 40 9-80 15/11/16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Work Order ID 138818

Thursday, November 12, 2015 2:51:33 PM

138818

Page 2

Item ID: D3681-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Spacer
Start Date: 11/12/2015 Start Qty: 50.00 ***50*** Cust Item ID:
Required Date: 11/20/2015 Req'd Qty: 50.00 ***50*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
125		0.00							
125						51	Ø	BE15-11-18	
Skidtubes	Memo	0.02							
Skidtubes	1- clean crossbolt spacer with ultra brigh aluminum cleaner before storing.								
130	Identify as per dwg & Stock Location LG001	0.00							
130						51	Ø	BE15-11-18	
Packaging	Memo	0.01							
Packaging	***STOCK IN SKIDTUBE CELL*** LOCATION : LG001								
140	QC21- Final Inspection - Work Order Release	0.00							
140								15/11/19	Ø
QC	Memo	0.08							
Quality Control									

20151118
Signature

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
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Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
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Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

Picklist Print

Thursday, November 12, 2015 2:51:30 PM

Page 1

Work Order ID: 138818

138818

Parent Item: D3681-1

D3681-1

Parent Item Name: Spacer

Start Date: 11/12/2015

Required Date: 11/20/2015

Start Qty: 50.00

Required Qty: 50.00

Comments: IPP Rev A new issue 07-10-30 DD verified by:EC
IPP Rev:B Ecn 1056 Rev A dwg DD IPP Rev:C add
seq 125 DD 10.05.03 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6T0.3125W.05 8		Purchased		No		100	f	129.3370	0.34	17.89474			

M6061T6T0 3125W 058

**

ALUM TUBE .3125 x .058w

Location	Loc Qty	Loc Code
MAT013	129.337	
m128855	46.27	
m132460	23.067	
m133509	60	

18.5^{ET} Jfc 2015-11-16

DQA: _____ Date: _____

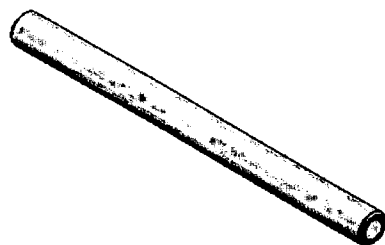


WORK ORDER NON-CONFORMANCE / UPDATE

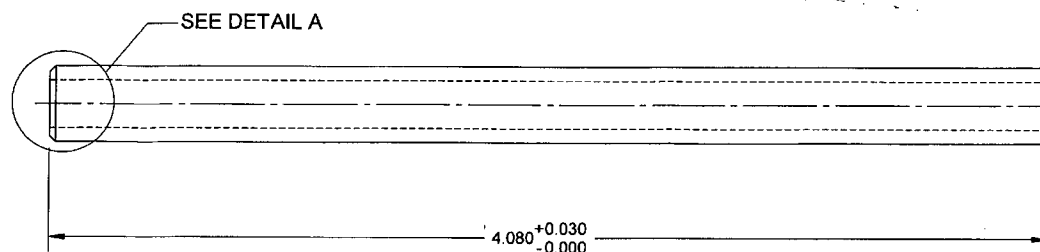
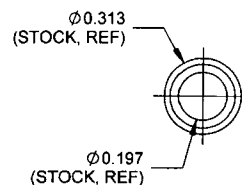
QA Closed: _____ Date: _____

Work Order update only ☐

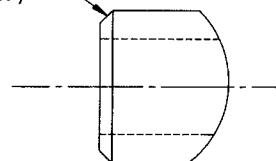
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		OTHER : ☐																																																																						



D3681-1 SPACER



0.025 X 45°
CHAMFER
(TYP)



DETAIL A
(SCALE 4 : 1)

Handwritten: 7111
#136818

RELEASED
07-11-08

NOTES:

- 1) MATERIAL: 6061-T6 OR 6061-T62 ALUMINUM TUBING 0.313" OD X 0.058" WALL
PER WW-T-700/6 OR AMS 4080 OR AMS 4082
OR QQ-A-200/8 OR QQ-A-225/8
(REF. DART SPEC. M6061T6T0.313W.058)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.02 lbs

A NEW ISSUE		DC	07.11.08
REV.	DESCRIPTION		BY DATE
DESIGN	BC	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	SC		
CHECKED	MB	DRAWING NO.	REV. A
MFG. APPR.	FED	D3681	SHEET 1 OF 1
APPROVED	W	TITLE	SCALE
DE APPR.	W	SPACER	2:1
DATE	07.11.08	COPYRIGHT © 2007 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Description Work Order Deviation				Disposition					
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							Lead hand / Supervisor Approval Verification		
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Root Cause				FAULT CATEGORY			
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Past Expiry Date ☐		Manufacturing Process ☐		OTHER :			
Misidentified ☐		Past Due ☐					

DART AEROSPACE LTD		Work Order: 1388/8
Description: Spacer		Part Number: D3681-1
Inspection Dwg: D3681	Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.313	+/-0.010	0.311	✓		caliper	OK
Ø0.197	+/-0.010	0.196	✓		"	"
4.080	+0.030/-0.000	4.085	✓		"	"
0.025 x 45°	+/-0.010 x 0.5°	0.025x45°	✓		"	"

Measured by: JFL	Audited by: DAS 40 9-99	Prototype Approval:	N/A
Date: 2015-11-16	Date: 15/11/16	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.01.16	New Issue	KJ/EC/DD	

DQA: _____ Date: _____



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Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					